

### Problem 3.34: An Interesting Circuit

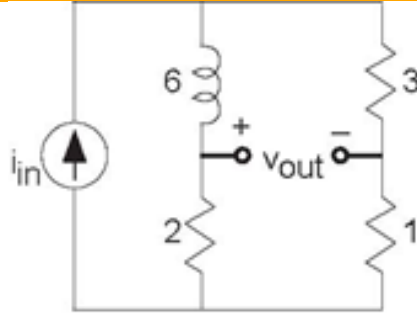


Figure 3.76 An Interesting Circuit

1. For the circuit shown in [Figure 3.76](#), find the transfer function.
2. What is the output voltage when the input has the form  $i_{in} = 5\sin(2000\pi t)$ ?

### Problem 3.35: A Simple Circuit

You are given the depicted circuit ([Figure 3.77](#)).

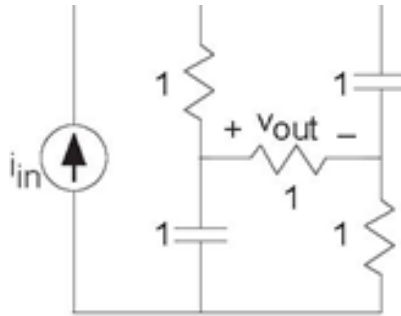


Figure 3.77 A Simple Circuit

1. What is the transfer function between the source and the output voltage?
2. What will the voltage be when the source equals  $\sin(t)$ ?
3. Many function generators produce a constant offset in addition to a sinusoid. If the source equals  $1 + \sin(t)$ , what is the output voltage?